REMARKS

By the present amendment, Applicant has amended Claims 1, 3, 10 through 13 and 15, cancelled Claims 2 and 16, and added Claims 17 through 22. Claims 1, 3 through 8, and 10 through 22 remain pending in the present application. Claims 1 and 15 are independent claims.

In the recent Office Action, which was made final, the Examiner rejected Claims 1 through 8 under 35 U.S.C. § 102(b) as being anticipated by Carlston. Claims 1 through 8 and 15 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlston in view of Magowan. Claims 16 and 10 through 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlston in view of Plaktiewicz and further in view of Curtis and Spencer et al. Claims 16 and 10 through 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlston in view of Magowan in view of Plaktiewicz and further in view of Curtis and Spencer et al. The cancellation of Claims 2 and 16 by the present amendment serves to render these particular grounds of rejection moot with respect to these two claims.

The claims in this application have been revised to more particularly define applicants' unique construction in view of the prior art of record. Applicant will advance arguments hereinbelow to illustrate the manner in which the presently claimed invention is patentably distinguishable from the cited and applied prior art. Consideration of the claims in light of the amendments and for the following reasons is respectfully requested.

Applicant has amended Independent Claim 1 to include at least one slip lining and replaced the phrase "biasing means being a special toroidal shape" with "at least one compression spring", with the compression spring comprising a solid resilient material having a toroidal shape and indicating that the compression spring is positioned within the first housing bore. None of the references cited have all of the elements of claim 1 nor do they suggest combining known elements to arrive at the present invention. Claims 3, and 11 though 13 have been amended to depend from

Claim 1.

Claim 15 has been amended to add the term "compression" before spring for clarity sake alone and is not seen to change the scope of Claim 15 in any manner whatsoever. Claims 17 through 22 were added to further point out patentable aspects of the present invention.

Applicant will discuss each of the references cited by the Examiner, in the last office action, hereinbelow in order to demonstrate some of the patentably distinguishable characteristics of the present invention. It is for at least these reasons that the claims of the present invention are allowable over the prior art applied of record.

Carlston lacks a toroidal shaped compression spring. A toroid is conventionally defined as a surface generated by a plane closed curve rotated about a line that lies in the same plane as the curve but does not intersect it, and generally has a donut shape. (See enclosed dictionary printouts with definitions for toroid and toroidal.) Applicant has expanded this meaning specifically to include toroid shaped rings with circular cross sections and other cross-sectional shapes, such as a square. The toroid shape does not include a C-shaped cross-section as found in Carlston. The spring with a C-shaped cross-section found in Carlston is designed specifically to "fold and flex" (See column 3, line 65). This is not the case with the present invention where the toroidal shape of the spring is designed to be compressed resulting in the curve shown in FIG. 3 until the toroidal spring is compressed sufficiently to engage the walls of the first housing bore. Once the toroidal spring is compressed sufficiently to engage the walls of the first housing bore, more force is required to compress the spring further than in the housing wall had not been present.

Clearly, the toroidal shaped compression spring of the present invention is not found in Carston. In fact the disclosure of Carlston teaches away from the present invention. Carlston states that "[t]he fold and flex are important in that during a normal work cycle the slope of the force vs. travel curve of FIG.3 must remain as flat as possible" (column 3, line 66 through column 4, line 1). The resulting slopes of the FIG. 3

in the current application and the FIG. 3 of the Carlston patent are obviously very different. Carlston emphasizes that this desired slope "must remain as flat as possible" which clearly teaches away from the present invention.

Furthermore, Applicant respectfully disagrees with Examiner's assertion that "a disassociation is unnecessary since the 'core' 50 against which the toroidally shaped ring 38 of Carlston rests is also cylindrical." Applicant has explained hereinabove why the ring of Carlston is not toroidally shaped. The core, however, of Carlston is not found in the present invention. The core of Carlston, which is abutted against the inner diameter of the spring 38 of Carlson, would restrict and deform the compression of the toroidal shaped compression spring of the present invention if deployed therein and abutted against the inner diameter of the toridal shaped compression spring. This central cylindrical core is used in Carlston to restrict the movement of the spring 36 preventing its collapse and displacement. Clearly, the internal core is not necessary for the present invention while it is necessary for the invention and Carlston.

Similarly, the present invention has an advantage in that the toroidal shaped compression spring does not need to be pinned to anything to hold it in place. The invention of Carlston has pins to hold the spring therein in position. This is unnecessary in the present invention. Furthermore, there is no slip lining disclosed in Carlston. No motivation or suggestion exists in the Carlston patent to provide a slip lining.

Examiner also asserts that it would be "obvious to one of ordinary skill in the art at the time the invention was made to have included a "special" toroid according to the teachings of Magowan in an assembly according to Carlston in order to provide a biasing means with a high degree of elasticity..." Applicant respectfully traverses this assertion. Since Carlston teaches away from the present invention, it would not have been obvious to combine Carlston and Magowan to arrive at the present invention. Also, the rings of Magowan are abutted next to the side wall, the inner wall and the top/bottom walls of the spring structure. The lack of space prevents the compression of

the toroidal shaped rings from exhibiting the curve of FIG. 3 of the present application. Furthermore, no slip lining is disclosed or suggested in Magowan.

Examiner asserts that the combination of Carlston, Platkiewicz et al., Curtis et al., and Spencer et al. anticipates the slip lining incorporated into the present invention. Platkiewicz et al. does provide a "slide lining composition" but it does not provide motivation to combine the lining with Carlston to arrive at the present invention. Also, Carlston does not provide motivation to combine with Platkiewicz et al. to arrive at the present invention. Examiner relies on Curtis et al. and Spencer et al. to provide this motivation.

Specifically, Spencer et al. discloses bearings and wedges (wedge shims) which are used as "spacing members" to maintain the separation of the side walls of the base member and cap. Spencer et al. states specifically that the wedges and bearings are preferably made of hardened steel or a hard polymer material (column 3, lines 36 through 40). There is no mention of a relative coefficient of friction between the wedges/bearings and the side walls of the base member or cap. Furthermore, the structure of the wedges and bearings are obviously nothing like the present slip linings. The bearings are roller bearings which roll (not slide) and the wedges are discrete wedge shapes. Neither the bearings nor the wedges are linings interposed between two walls. The wedges and bearings are predominantly used as spacing members to keep the side walls from direct contact with each other. Also, the spacing members (bearings or wedges) are permitted great vertical movement within the apparatus and can move upper and lower detents 92 and 90 (see FIGS. 2 and 3). The present invention does not have the great space between the first and second bore walls, and the linings are certainly not permitted such free vertical movement. In short, there is no comparison between the structure of the spacing members of Spencer et al. and the slip lining of the present invention. There is no suggestion expressed in Spencer et al. to create the slip

linings of the present invention nor is there motivation to combine the prior art of record with Spencer et al. to arrive at the present invention.

The statement that it "automatically adjusts and compensates for wear between cap and base parts" found in the Office Action (at page 6 line 5) refers to compensating for wear between the cap and base parts and not to preventing wear and facilitating sliding. In other words, the invention of Spencer et al. utilizes some means for compensating for wear. This is presumably the bearing or wedge filling in the worn out regions of the cap or base part to maintain proper spacing in spite of the wear. This does not address the need to reduce friction in any case, but merely addresses the need to fill in worn places resulting from friction.

Curtis et al. discloses a long travel side bearing which has "[a] filler material or spacer 64, 65 ... provided in two strips along the forward side and rear side of the outside of the sleeve member 62, between the sleeve member and the top cap member" (column 4, lines 61-65). These spacers facilitate two things. First, they permit the sliding of the top cap member around the sleeve member and second, they permit the top cap to rock about a longitudinal axis vis a vis the base portion. Not only do the spacers of Curtis et al. not resemble the slip lining of the present invention as they are strips, they do not have a similar functional utility. The spacers of Curtis et al. permit very specific movement including longitudinal rocking motions. The slip linings are specifically designed not to permit such longitudinal rocking motions, as discussed hereinbelow. Obviousness cannot be based on combining references which would serve to render the *res* of the reference unsatisfactory for its intended purpose. (See MPEP § 2143.01). Combining Curtis et al. with any of the cited references to arrive at the present invention would render the *res* of the Curtis et al. unsatisfactory for its intended purpose.

There is no motivation expressed in any of these references to combine them to form the present invention. "The mere fact that references can be combined or modified

does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP § 2143.01; see also In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). There must be some suggestion or motivation which is in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify or combine the references. No such suggestion exists in the present circumstance. In order to support the assertion that the present invention, as claimed, is directed to obvious subject matter, the references must expressly/impliedly assert the present invention as claimed. *Ex Parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Obviously, the fact that the primary reference, Carlston, teaches away from the present invention makes such an assertion infeasible.

None of the cited references can be combined to create the slip lining of the present invention. These references simply do not disclose any element like the slip lining of the present invention. It should be noted that the slip lining of the present invention serves to "ensure that the present invention, when subjected to a load, compresses essentially along its assembly axis 20 by occupying space between the first and second housings" (page 5, lines 18 to 20). The slip linings serve to reduce friction "when the material of the slip lining has a lower coefficient of friction than that of the housings" and to disrupt direct noise transmission (page 5, lines 20-24).

For the foregoing reasons, Applicant respectfully submits that the present application is in condition for allowance. If such is not the case, the Examiner is requested to kindly contact the undersigned in an effort to satisfactorily conclude the prosecution of this application.

Applicant has amended two paragraphs of the specification in order to correct typographical errors. In one case, the application has the term "baring" where "bearing" was obviously intended. And in the second case, the application misidentifies the numeral reference to the drawings of the first housing exterior surface.

The present amendment repairs these typographical errors merely for clarity sake. No new matter has been added to the specification hereby.

Applicants believe no further fees are due with the filing of this Response; however, if it is determined that additional fees are required, please charge our Deposit Account No. 13-0235.

Respectfully submitted,

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Marked-up Version of Amendments

A marked-up version of the amendments are shown below showing additions with underlining and deletions between brackets.

In the Specification:

The replacement paragraph for page 3, line 2 to page 3, line 16 is as follows:

The present invention is directed to a side bearing pad assembly for absorbing and cushioning compression forces. The assembly comprises a first and second housing, a first and second load bearing member, and biasing means. The first housing has an exterior surface and defines a bore extending at least partway through the first housing. The first housing is coupled to the first load bearing member, thus defining a first abutment surface on the first land bearing member opposite the first housing. The second housing has an exterior surface and also defines a bore extending at least partway therethrough. The second housing also has a bore, of a shape complementary to the exterior surface of the first housing, and is adapted to slidably or telescopically receive the first housing therein. The second housing is coupled to the second load bearing member, thus defining a second abutment surface on the second load [baring] bearing member opposite the second housing. Biasing means for urging the first and second load bearing members away from each other in response to a load being imposed on at least one of the abutment surfaces is also provided.

The replacement paragraph for page 5, line 5 to page 5, line 17 is as follows:

Still referring to FIG. 1, first and second slip linings, 50 and 52 respectively, are provided. The first slip lining 50 has a first lining exterior surface 54 and defines a first lining bore 56 extending therethrough. The first lining bore 54 has a shape complementary to the first housing exterior surface [34] 32, and is adapted to receive the first housing therein. Similarly, the second slip lining 52 has a second lining exterior

surface 58 and defines a second lining bore 60 extending therethrough. The second lining exterior surface 58 defines a shape complementary to and adapted to be received in the second housing bore 44. The first slip lining exterior surface 54 is also similar in shape but slightly smaller in size as compared to the second slip lining bore 60, so that the first slip lining 50 is slidably received within the second slip lining bore 60. Thus the first housing 30, the first slip lining 50, the second slip lining 52, and the second housing 40 all telescope along the axis 20.

In the Claims

Claim 1

1. (Thrice Amended) A bearing pad assembly comprising:

a first housing having an exterior surface and defining a bore extending at least part-way through said first housing;

a first load bearing member coupled to said first housing, and defining an outwardly facing first abutment surface;

a second housing defining a bore of a shape similar to said exterior surface of said first housing and adapted to slideably receive said first housing therein;

a second load bearing member coupled to said second housing and defining an outwardly facing second abutment surface opposite to said first abutment surface;

at least one slip lining positioned between said first housing exterior surface and a bore wall defining said second housing bore; and

[biasing means being a special] at least one compression spring positioned within said first housing bore, wherein said compression spring comprises a solid resilient material having a toroidal shape for urging said first and second load bearing members away from one another in response to a load being imposed upon at least one of said first and second abutment surfaces.

Claim 3

3. (Amended) The assembly of claim [2] 1 wherein the compression spring deforms non-linearly in response to said load imposed on at least one of the first and second abutment surfaces.

Claim 10

10. (Thrice Amended) The assembly of claim [16] 1 wherein the slip lining has a coefficient of static friction less than that of the first housing.

Claim 11

11. (Thrice Amended) The assembly of claim [16] 1 wherein the slip lining is attached to the first housing exterior surface.

Claim 12

12. (Thrice Amended) The assembly of claim [16] 1 wherein a second slip lining is attached to the second housing bore wall.

Claim 13

13. (Thrice Amended) The assembly of claim [16] 1 wherein the slip lining is made substantially of an organic polymer.

Claim 15

15. (Thrice Amended) A bearing pad assembly comprising:

a first housing having a bore extending through said first housing;

a first load bearing member coupled to said first housing and defining an abutment surface opposite to said first housing;

a second housing having a bore extending through said second housing, adapted to telescopically receive said first housing;

a second load bearing member coupled to said second housing and

defining an abutment surface opposite to said second housing; and

at least one compression spring in the shape of a special toroidal shape ring positioned within said first housing bore, for urging said first and second abutment surfaces away from each other in response to a load imposed on at least one of said abutment surfaces.

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One entry found for **toroidal**.

Main Entry: **to·roi·dal**
Pronunciation: to-'roi-d&l
Function: *adjective*
Date: circa 1889
: of, relating to, or shaped like a torus or toroid : doughnut-shaped <a *toroidal* resistance coil>
- **to·roi·dal·ly** /-d&l-E/ *adverb*

\&\ as **a** and **u** in **abut**	\e\ as **e** in **bet**	\o\ as **aw** in **law**
\&\ as **e** in **kitten**	\E\ as **ea** in **easy**	\oi\ as **oy** in **boy**
\&r\ as **ur/er** in **further**	\g\ as **g** in **go**	\th\ as **th** in **thin**
\a\ as **a** in **ash**	\i\ as **i** in **hit**	\[th]\ as **th** in **the**
\A\ as **a** in **ace**	\I\ as **i** in **ice**	\ü\ as **oo** in **loot**
\ä\ as **o** in **mop**	\j\ as **j** in **job**	\u\ as **oo** in **foot**
\au\ as **ou** in **out**	\[ng]\ as **ng** in **sing**	\y\ as **y** in **yet**
\ch\ as **ch** in **chin**	\O\ as **o** in **go**	\zh\ as **si** in **vision**

For more information see the Guide To Pronunciation.

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One entry found for **toroid**.

Main Entry: **to·roid**
Pronunciation: `'tOr-"oid, 'tor-`
Function: *noun*
Etymology: New Latin *torus*
Date: circa 1900
1 : a surface generated by a plane closed curve rotated about a line that lies in the same plane as the curve but does not intersect it
2 : a body whose surface has the form of a toroid

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\&\ as **a** and **u** in **abut**	\e\ as **e** in **bet**	\o\ as **aw** in **law**
\ᵊ\ as **e** in **kitten**	\E\ as **ea** in **easy**	\oi\ as **oy** in **boy**
\&r\ as **ur/er** in **further**	\g\ as **g** in **go**	\th\ as **th** in **thin**
\a\ as **a** in **ash**	\i\ as **i** in **hit**	\[th]\ as **th** in **the**
\A\ as **a** in **ace**	\I\ as **i** in **ice**	\ü\ as **oo** in **loot**
\ä\ as **o** in **mop**	\j\ as **j** in **job**	\u\ as **oo** in **foot**
\au\ as **ou** in **out**	\[ng]\ as **ng** in **sing**	\y\ as **y** in **yet**
\ch\ as **ch** in **chin**	\O\ as **o** in **go**	\zh\ as **si** in **vision**

For more information see the Guide To Pronunciation.